

Amendments to the Drawings:

The attached Replacement sheets of drawings include changes to Figs. 1 and 2. These replacement sheets, which include Figs. 1 and 2 replace the original sheets including Figs. 1 and 2. Figs. 1 and 2 have been amended to include and make readable descriptive text in response to the objection in the Office Action as to non-inclusion and non-readability of descriptive text.

Attachment: 2 replacement sheets

REMARKS

Claims 6 to 10 are now pending in the above-referenced application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration of the present application is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the acknowledgment that all copies of the certified copies of the priority documents have been received.

Applicants thank the Examiner for considering the previously filed Information Disclosure Statement, PTO-1449 paper and cited references, but note that the Examiner has not indicated that one of the listed references, *i.e.*, GB 2 317 256, has been considered. Applicants respectfully request an indication of consideration of this reference with the next Office communication.

In response to the objection to the drawings, two replacement sheets of drawings is submitted. The replacement sheets include amended Figs. 1 and 2. Figs. 1 and 2 has been amended to render moot the objection as to the inclusion and readability of descriptive text. Withdrawal of the objection is therefore respectfully requested.

Claim 6 stands rejected under 35 U.S.C. 102(a) as being unpatentable over U.S. Patent No. 5,063,857 to Kissel, Jr. ("Kissel, Jr.").

Claim 6 refers to a method for the lane allocation of consecutive vehicles on multi-lane roads, and recites "carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects."

The Office Action refers to column 25, lines 25 to 56 as allegedly disclosing the features recited in claim 6. However, the referenced section discusses two ways of determining a position of another vehicle. One way is via a signal of a device in a guideway, unrelated to detected radar objects. The other way is based on a radio frequency signal received from another vehicle that "carries information pertaining to the present position and speed of the vehicle." Thus, according to this second way, a vehicle determines another vehicle's position apparently by deciphering contents of a received signal which provides the information. Nowhere does Kissel, Jr. disclose, or even suggest, performing a frequency distribution of lateral displacements of one or more of the received signals. Nowhere does Kissel, Jr. disclose or suggest performing "a frequency distribution of lateral displacements of detected radar objects."

Further, Kissel, Jr. refers to determining location and speed of vehicles on a continuous guideway. Kissel, Jr. is therefore unrelated to claim 6, which recites a method for the *lane allocation of vehicles on multi-lane roads*.

Further, Kissel, Jr. refers to determining location and speed of a single preceding vehicle and a single following vehicle, with respect to a determining vehicle, and therefore does not disclose or suggest a method for lane allocation of *consecutive* vehicles. For this additional reason, Kissel, Jr. is unrelated to claim 6.

Since Kissel, Jr. does not disclose, or even suggest, all of the features recited in claim 6, it is therefore respectfully submitted that Kissel, Jr. does not anticipate claim 6. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 9 stands rejected under 35 U.S.C. 102(a) as being unpatentable over U.S. Patent No. 6,026,353 to Winner ("Winner").

Claim 9 refers to a method for detecting a misalignment of a sensor on the basis of reflection, and recites "detecting a horizontal misalignment from a position of average values for lanes in a histogram with respect to a vehicle axis."

While Winner may discuss determining a misalignment of a clearance sensor based on pitch angles that are correlated with data generated by the clearance sensor, nowhere does Winner disclose, or even suggest, determining a misalignment from a position of average values *for lanes in a histogram* with respect to a vehicle axis.

Further, the method of Winner does not refer to detecting a horizontal misalignment. In this regard, the Office Action refers to column 1, lines 10 to 13 and column 2, lines 4 to 6 as allegedly indicating otherwise. However, the former referenced section merely defines the term "misalignment," and does not indicate that the method of Winner refers to detecting a horizontal misalignment. While Winner states that "misalignment" means "any misadjustment or misalignment . . . which causes a failure in the transmission or reception of the measuring radiation emitted or received by the clearance sensor," Winner indicates that its method is directed specifically to detection of a *vertical* misalignment, and not to a misalignment generally. *See* Winner, column 2, lines 13 to 15.

With respect to the latter referenced section, while Winner states in the background section that a horizontal misalignment may be detected based on "erroneous angle of targets," Winner indicates that detection of a vertical misalignment requires a different method. It is this different method, used specifically for detection of *vertical* misalignment, that is the subject of Winner's invention and that is discussed in the abstract. Thus, the method discussed in the abstract, to which the Examiner refers as allegedly disclosing "detecting a horizontal misalignment from a position of average values for lanes in a histogram with respect to a vehicle axis," (which it in any case does not as discussed above), is a method for detection of a *vertical* misalignment.

Accordingly, nowhere does Winner disclose, or even suggest, performing “detecting a horizontal misalignment from a position of average values for lanes in a histogram with respect to a vehicle axis.”

Since Winner does not disclose, or even suggest, all of the features recited in claim 9, it is therefore respectfully submitted that Winner does not anticipate claim 9. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kissel, Jr. in view of United States Patent No. 5,555,555 to Sato et al. (“Sato et al.”)

Claim 7 recites “means for carrying out a lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects.” As set forth above in support of the patentability of claim 6, Kissel, Jr. does not disclose or suggest these features. Since Sato et al. do not overcome the deficiencies Kissel, Jr., it is respectfully submitted that the combination of Kissel, Jr. and Sato et al. does not render unpatentable claim 7 or its dependent claim, *i.e.*, claim 8. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. in view of Winner.

Claim 10 recites “means for storing, with equivalent object treatment, a first histogram for a lateral displacement of a detected object and a second histogram for a distance of a detected object; and means for determining a misalignment angle of a sensor by determining a centroid of the first and second histograms.”

The Office Action refers to column 16, line 58 to column 17, line 18 of Sato et al. as allegedly disclosing means for storing a histogram for a lateral displacement of a detected object. The referenced section does not refer to a histogram for a lateral displacement of a detected object. Indeed, nowhere do Sato et al. disclose, or even suggest, a histogram for a lateral displacement of a detected object, or a means for its storage.

The Office Action refers to column 18, line 52 to column 19, line 7 of Sato et al. as allegedly disclosing means for storing a histogram for a distance of a detected object. The referenced section does not refer to a histogram for a distance of a detected object. Indeed, nowhere do Sato et al. disclose, or even suggest, a histogram for a distance of a detected object, or a means for its storage.

Further, the Examiner admits that Sato et al. do not disclose “means for determining a misalignment angle of a sensor by determining a centroid of [a] first [histogram for a lateral displacement of a detected object] and [a] second [histogram for a distance of a detected object].” Instead, the Examiner refers to Winner as allegedly disclosing these features. Winner refers to detecting a sensor misalignment based on a

vehicle's pitch angle and distances between the sensor and a detected object. Neither Sato et al. nor Winner, nor their combination, discloses or suggests determining a misalignment angle by determining a centroid of histograms for a *lateral displacement* and a distance of a detected object.

Since the combination of Sato et al. and Winner does not disclose or suggest all of the feature recited in claim 10, it is therefore respectfully submitted that the combination of Sato et al. and Winner does not render unpatentable claim 10. Accordingly, withdrawal of this rejection is respectfully requested.

It is respectfully submitted that the subject matter of the present application is new, non-obvious, and useful. Prompt consideration and allowance of the application are respectfully requested.

Respectfully submitted,

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